



European Utilities: Renewable Energy Corporates Rating Methodology

Corporate Ratings

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1. Introduction

Scope Ratings' updated rating methodology for European renewable energy corporates supplements our [Corporate Rating Methodology](#), published on 6 July 2021. This methodology might also be selectively applied to non-European issuers when considered appropriate.

The methodology remains unchanged. The updated methodology does not add new rating drivers to the existing methodology and does not lead to any change to existing ratings.

Scope defines renewable energy corporates as companies that generate the majority of their total revenues and cash flows from the generation of renewable energy (electricity and/or heat), such as independent power producers (IPPs) and project development of renewable energy capacities. Asset management companies that focus solely on fund management of renewable energy assets through special purpose vehicles (SPVs) are not covered by this methodology. Furthermore, this document does not cover multi-utilities with exposures to different infrastructure assets, such as conventional energy generation or energy transmission and distribution (which are covered within [Scope rating methodology for European utilities](#)).

Our [Corporate Rating Methodology](#) lays down the key principles and criteria which we apply when assigning ratings to corporate issuers and their debt instruments.

2. The European renewable energy industry

The European renewable energy industry is very fragmented, and participants often have a relatively small share of the European market for energy production. This is due to the high degree of decentralised small-scale energy generation and the different degrees of sector maturities in the various regulatory frameworks across Europe.

Business models in the renewable energy industry vary greatly, ranging from power generation (electricity and/or heat) from different renewable energy sources, such as wind, solar, hydro, biomass and geothermal energy, to development activities comprising engineering, procurement and construction of renewable energy power plants.

The renewable energy industry is highly regulated. Regulation is driven heavily by the European Union's goals to reduce carbon emissions and achieve so-called renewable energy quotas. Regulation includes investment incentives, such as the guaranteed feed-in of produced energy into the electricity system, as well as a guaranteed remuneration through fixed feed-in tariffs or green certificates. Due to this regulatory support, many companies act as quasi-monopolies with fairly stable and predictable cash flows, despite their relatively small size and very limited market shares. In cases where no regulatory tariff schemes exist, for example in countries with no feed-in tariffs or green certificates, renewable energy corporates generally enjoy long-term power purchase agreements with utilities, power traders or industrial companies. Scope notes that regulatory support with a guaranteed take-off of produced energy at fixed prices is continuously fading, with an increasing focus on competitive bidding for new renewable energy projects.

Renewable energy corporates' cash flows and their volatility differ widely depending on business model. This tends to be either power generation or power plant development and construction. Although renewable energy producers may face volume risks arising from weather conditions, their revenues, profitability and cash flows tend to be relatively steady and predictable. This is a result of regulated tariffs or long-term power purchase agreements, as well as widely controllable cost structures. In contrast, cash flows derived from project development activities tend to be volatile and less predictable. This depends to a great extent on the number and the stages of projects in the development pipeline, the stability of the regulatory environment and the stage of the economic cycle. Moreover, these project developers may face development and construction risks.

The renewable energy sector is a capital-intensive industry with significant investment required to acquire, build and maintain power generation assets. Many companies in the sector finance a large portion of these investments via project debt. As a result, they tend to have a higher leverage than the average industrial company. However, these relatively high debt levels are also frequently matched by higher levels of relatively stable asset values due to good visibility on long-term revenues and cash flows. The market for renewable energy assets tends to be comparatively liquid. In most cases, sales of renewable energy assets are easily realisable.

Parameters which can qualify a renewable energy corporate for an investment grade rating are the operation of a large pool of diversified power generation assets with protected revenue models – either backed by guaranteed feed-in tariffs in mature renewable energy markets or by long-lasting power purchase agreements. Other parameters are highly predictable cash flows, a solid and relatively stable profitability, and strong financial measures.

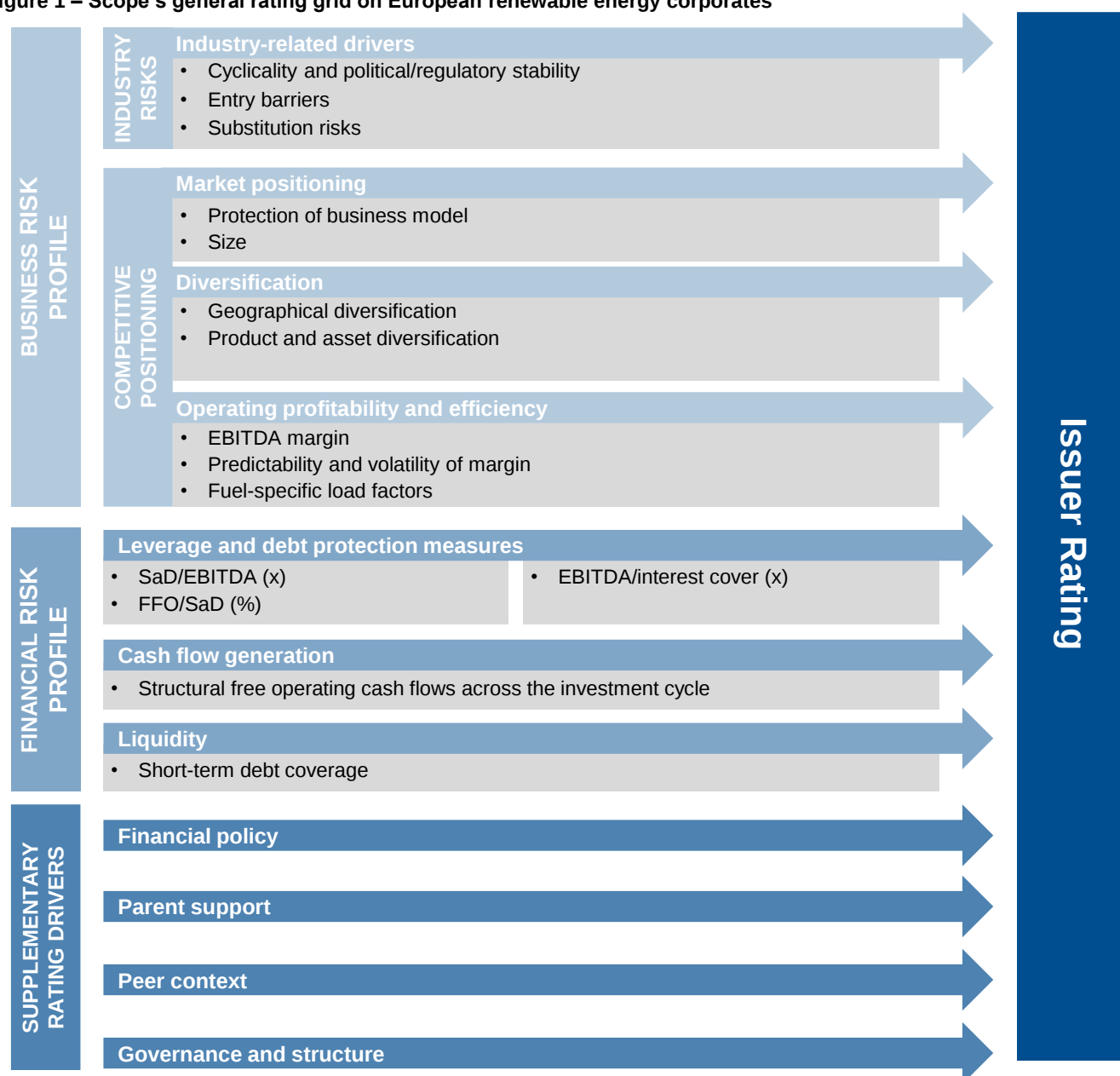
In contrast, high merchant and substitution risks, a comparatively small and less diversified power generation portfolio as well as a significant revenue contribution from project development activities can be indicators for a non-investment grade rating. Further parameters, which indicate a non-investment grade rating, are less predictable cash flows and profitability as well as weaker financial measures. These are often driven by a volatile energy production (i.e. hydro and wind power plants) or by a high proportion of variable costs (i.e. biomass power plants).

Ratings of renewable energy corporates can reach up to the higher investment grade categories, mostly driven by size, business protection through stable regulations, and geographical focus.

3. Rating drivers

Scope's Corporate Rating Methodology applies to European renewable energy corporates as outlined in Figure 1 below. The business risk and financial risk indicators are non-exhaustive and may not apply fully to all utilities. The importance of these rating drivers varies according to the company's business model.

Figure 1 – Scope's general rating grid on European renewable energy corporates



Scope's analysis in this sector covers factors common to all industries, such as management, liquidity, corporate legal structure, governance and country risks. More detail can be found in Scope's Corporate Rating Methodology. Scope notes that rating drivers are not mutually exclusive and collectively exhaustive and may overlap. Issuer-specific rating factors may be added to Scope's rating approach.

3.1 Business risk profile

Scope adopts a forward-looking approach when analysing a utility's business risk profile. It takes into account the utility's market and sector dynamics, and business drivers. The business risk profile is divided into an industry-related section and a company-specific part.

3.1.1 Industry-related drivers

Scope assesses industry fundamentals of European renewable energy corporates by examining the following industry drivers:

- Cyclical and political/regulatory stability;
- Entry barriers; and
- Substitution risks.

Figure 2 – Scope's industry risk assessment for different renewables segments

Cyclical Entry barriers	Entry barriers		
	Low	Medium	High
High	CCC/B Project developers	B/BB Generators which sell at market prices	BB/BBB
Medium	B/BB	BB/BBB	BBB/A
Low	BB/BBB	BBB/A	AA/AAA Generators which operate under regulated long-term tariff schemes

Analysing these indicators results in an assessment for the renewable energy industry as follows:

Cyclical and political/regulatory stability

To minimise the need for rating changes due to cyclical volatility, Scope aims to include the impact of the economic cycle in its rating wherever possible. From Scope's perspective, a renewable energy corporate's exposure to economic cycles strongly depends on the merchant model which affects the volatility of cash flows. For renewable energy corporates which sell at fully regulated long-term tariffs, Scope regards exposure to cyclical to be low. In contrast, renewable energy corporates which sell at market prices may face high volatility from market prices. Project developers generally face high cyclical exposure.

Scope assesses the impact of different European regulatory frameworks with regard to the stability and predictability of a renewable energy corporate's cash flow generation. On the one hand, regulations in some European countries tend to protect a renewable energy corporate's business model through a guaranteed feed-in and remuneration of generated energy. On the other hand, specific generation assets are completely unregulated or existing regulations are running out, which makes renewables generation capacities similar to unregulated generation assets from conventional utilities. Scope's analysis incorporates the history of the regulatory framework as this may vary strongly across different European countries.

Entry barriers

Given the high fragmentation of the industry, with even households being small IPPs and a long list of project developers, entry barriers in the industry are generally low. Nevertheless, Scope takes into account the entry barriers to the industry, which are imposed by the high capital intensity of power generation assets and by regulations. While entry barriers for project developers remain low, Scope assesses entry barriers for new competitors in the area of fully regulated power generation to be high and entry barriers for competitors for IPPs which sell at market prices to be medium.

Substitution risks

Substitution risks are generally low for the industry as generated energy in any form (electricity, heat, gas and other commodities) are hardly substitutable. In fact, the ongoing energy transition with a gradual substitution of conventional energy generation assets through renewable energy assets strongly support the sector's developments.

For IPPs which operate in a market with comparatively low cyclicality, high entry barriers and low substitution risks, such as corporates which enjoy regulated tariffs, Scope assigns industry risks of AA+. Scope would only refer to the lowest industry risk assessment for corporates operating in markets which display the highest credit quality and a long-term, proven regulatory framework for renewable energy. For IPPs exposed to market price volatility, Scope sees high cyclicality, medium entry barriers and low substitution risks, which results in an industry assessment of BB. Project developers face high industry risks of B given the strong exposure to cyclicality, low entry barriers and low substitution risks.

3.1.2 Competitive positioning

Scope's analysis of a renewable energy corporate's market positioning concentrates on factors that determine the company's revenue protection, such as the degree and stability of regulations, the risks of substitution, as well as a renewable energy corporate's size.

Market positioning

Protection of business model

Scope assesses the protection of a renewable energy corporate's business model against competition. For IPPs such protection could stem from a guaranteed take-off and remuneration of produced energy, thereby placing the corporate in a quasi-monopolistic position with almost no merchant, price or substitution risks. Such protection contributes to an IPPs cash flow stability and predictability. The same may apply for heat suppliers that do not face true competition in their supply region but are exposed to price risks. For IPPs which sell generated energy through power purchase agreements or at market prices, Scope assesses the competitiveness of their power generation capacities in the context of the merit order system. For corporates significantly exposed to project development activities, Scope assesses the track record and order backlog to assess competitive position.

Size

A renewable energy company's size determines its market strength and ability to achieve economies of scale. Furthermore, larger-scale power production capacity suggests a more balanced power generation portfolio, given the nature of small, decentralised power generation assets compared with operators of conventional power plants fuelled by hard coal, lignite, gas or nuclear. However, given the high contribution from regulated turnover, sheer size and market share in this sector tend to be less important indicators of cash flow generation capability than for corporates in less regulated industries. Scope considers that the indicators for a renewable energy company's market positioning and scale are a combination of the company's size in terms of total generation capacity and its EBITDA. Large size often goes hand in hand with solid diversification in terms of geographies, power generation assets, products/services and off-takers.

Figure 3 – Market positioning by rating category

		A and above	BBB	BB	B and below
Protection of business model		Protected revenue model due to little or no price and substitution risks		No guaranteed take-off and no protected revenue model	
Size	Production capacity	>1,000 MW	>100 MW	>20 MW	<20 MW
	EBITDA (EURm)	>500	100 to 500	20 to 100	< 20

Diversification

A renewable energy company's product and geographical diversification determines its ability to offset the cash flow volatility arising from interferences in power generation, regulatory changes, economic cycles and industry dynamics. While product and geographical diversification is less important for power generators exhibiting a quasi-monopoly through a fixed feed-in tariff model, it is particularly important for corporates with less predictable cash flows, for example those that might face regulatory risks in less stable jurisdictions or that sell energy at market prices without guaranteed take-off.

Product and asset and asset diversification

Scope considers a solid product diversification across different power generation assets and/or by-products to be a positive rating driver. Spreading power generation activities across different assets (power plants fuelled by different energy sources, e.g., hydro, wind, solar, geothermal and biomass) and/or services (electricity/heat/biogas) tends to reduce cash flow volatility. Similarly, the incremental effect of one power generation asset decreases as scale increases. The more diversified the power generation assets of a renewable energy company's portfolio are, the lower the risks of a significant deterioration in the company's cash flow in the event of unexpected weather conditions, disruptions in power generation operations, or the volatility of cost structures. Further product diversification towards project development may add additional FFO, however, and may also result in high cash flow volatility, due to the lower contribution of recurring income and higher requirements in the companies' working capital.

Geographical diversification

The spread of power generation activities across various geographical regions can generally lessen the impact from external shocks, such as unexpected weather conditions or regulatory changes, and tends to reduce a company's cash flow volatility. It is therefore seen as a positive rating factor by Scope. Nevertheless, the drawback of a lack of geographical diversification across different regions and jurisdictions can be offset through a company's quasi-monopolistic position in a limited geographic area. Hence, a broad geographical diversification is most important for renewable energy corporates whose sales approach focuses on market price.

Figure 4 – Diversification by rating category

	A and above	BBB	BB	B and below
Geographical diversification	Power generation assets in different mature renewable energy markets		Power generation assets in single and less mature renewable energy markets	
Product asset diversification	Well-balanced power generation portfolio comprising different independent power generation assets		Electricity and/or heat generation only from one of only few power plants	

Operating profitability and efficiency

Scope regards a renewable energy company's EBITDA margin as the most important indicator of its profitability, efficiency and cash flow stability. Furthermore, Scope assesses the load factors of renewable energy power plant operators that are in line with fuel-specific load expectations or significantly lower.

Scope regards highly predictable margins stemming from power generation assets with a fixed tariff structure (i.e., feed-in tariffs or power purchase agreements) and a low degree of variable costs as credit-positive.

EBITDA margins largely depends on the type of fuel used for power production, on the volatility of power generation volumes, on the tariff structure, and on the corresponding structure of fixed and variable costs. Some EBITDA volatility might come with increasing exposure to project development activities.

Pure renewable energy generators that focus on comparatively stable production volumes and a low degree of variable costs, such as companies focusing on hydro, wind, solar and geothermal power generation, tend to have EBITDA margins of between 50-85% with very little volatility.

Power generators with a high percentage of variable costs, such as biomass power generators, tend to have lower EBITDA margin of between 20-50% and margins tend to be relatively more volatile.

Power generators that also focus on project development activities tend to show very volatile EBITDA margins in the development segment. EBITDA margins for project development can reach up to 30% in individual years. The volatility of EBITDA depends greatly on the size and quality of a developer's project pipeline.

Figure 5 – Profitability by rating category

	A and above	BBB	BB	B and below
EBITDA margin (%)	> 85%	50-85%	20-50%	< 20%

3.2 Financial risk profile

In calculating key credit metrics, Scope uses items from a company's cash flow statement in order to highlight its cash-oriented approach.

3.2.1 Leverage and debt protection measures

Scope's assessment of leverage and debt protection measures takes the following into account:

- Leverage
 - FFO/Scope-adjusted debt (SaD; %)
 - SaD/EBITDA (x)
- Debt protection
 - EBITDA/interest cover (x)

Given the long-term nature of assets in the industry, a large portion of project finance, and highly predictable earnings, renewable energy corporates tend to have greater leverage and longer debt maturities than an average industrial company. However, relatively high debt levels are frequently matched by higher levels of relatively stable asset values, which in many cases are easily realisable. Furthermore, the comparatively high adjusted leverage of renewable energy corporates is backed by solid debt protection measures, such as EBITDA/interest cover (x) (regarding definitions and computation of these ratios pls see figure 6 of Scope's [Corporate Rating Methodology](#)).

Figure 6 – Financial measures by rating category

	A and above	BBB	BB	B and below
Leverage				
FFO/SaD (%)	> 20	15 to 20	10 to 15	< 10
SaD/EBITDA (x)	< 4	4 to 6	6 to 9	> 9
Debt protection				
EBITDA/interest cover (x)	> 7.5	4.0 to 7.5	2.75 to 4.0	< 2.75

3.2.2 Cash flow generation

Renewable energy companies tend to be highly capital intensive. During investment cycles, free cash flows can be significantly negative (power generators because of capex; project developers because of working capital requirements), thus requiring new debt and/or equity to finance replacements and/or expansion. Nevertheless, due to comparatively short construction times compared with conventional power plants or power grids and networks, capex tends to be quickly covered through organic cash flow generation from power generation.

As quantitative measures regarding capex coverage can be strongly influenced by the point in the renewable energy company's investment cycle, Scope qualitatively assesses how the company is able to cover its investment requirements through organic funding. While an investment-grade rated company is expected to fully cover its capex internally, a non-investment grade company is likely to depend on external funding over a longer period.

Figure 7 – Free operating cash flow generation by rating category

	A and above	BBB	BB	B and below
Free operating cash flow	Structurally neutral to positive across the investment cycle		Structurally negative across the investment cycle	

3.2.3 Liquidity

There is no sector-specific assessment of a renewable energy corporate's liquidity. The latter is addressed as described in the Corporate Rating Methodology.

3.3 Supplementary rating drivers

3.3.1 Financial policy

Scope's ratings capture a renewable energy corporate's management 'risk appetite' for discretionary spending decisions like acquisitions, dividends and share buybacks and the extent to which these are funded with debt; also capturing management's ratings commitment, both credit-positive and negative. For family-owned companies, Scope believes management commitment in case of short-term deviations from its stated financial policy as a consequence of debt-funded acquisitions is usually stronger than for non-owner managed companies. Scope tries to reflect this in its financial policy assessment based on the companies' track record and level of commitment.

3.3.2 Parent support

In assessing credit quality of an entity that may benefit from parent support, Scope incorporates the owner's capacity and willingness to support an entity/subsidiary under financial distress. Scope aims to capture potential support (or even a 'malus') that results from the ownership structure, which can have both credit-positive and negative implications. In terms of a rating impact, all options are possible: from full equalisation of subsidiary's ratings to the parent's (and, in the case of high strategic importance, name equality, debt guarantees or other supportive factors) to no notch at all. An ownership malus could be due to a weaker parent and the parent's inability to support its subsidiary. Scope assesses the degree of the subsidiary's strategic importance in relation to the parent. This could be strategically significant or less significant. Further considerations are the degree of actual support the parent could extend to its subsidiary in the form of explicit guarantees, letters of credit or other considerations. More implicit forms of parent commitment could be provided by name equality or using the same banking relations, or even through common treasury operations. When assessing parent or government support, we apply our '[Rating Methodology: Government Related Entities](#)'.

3.3.3 Peer context

Scope's ratings reflect additional considerations in a peer group context which aim at ensuring consistency across the rating spectrum; with both credit-positive and negative implications.

3.3.4 Governance and structure

In its rating analysis, Scope assesses the corporate's management and management track record (as described in the Corporate Rating Methodology). A solid track record is considered a positive factor for the rating and provides Scope with confidence in the company's forecasts.

Although a corporate governance structure does not drive up a utility's rating, it is an important factor in determining Scope's credit ratings. Adequate corporate governance forms the minimum standard for a rating, but weak corporate governance can drive down a rating.

3.4 Additional methodology factors - ESG

For further details on how we incorporate ESG in our analysis, rating Outlooks for corporate debt ratings, short-term ratings, recovery analysis and individual instrument ratings or rating categories, please see our Rating Methodology Corporate Ratings from in sections 3.1.3 and 6.

During the rating process, we implicitly capture general environmental, social and governance (ESG) factors that have a material credit impact. We conduct an explicit corporate governance assessment during the rating process. Our rating analysis remains focused on credit quality and credit assessment drivers. We only consider an ESG factor relevant to our credit rating process if it has a ubiquitously discernible and material impact on the rated entity's cash flow profile and, by extension, its overall credit quality.

Contrary to ESG ratings, which are largely based on quantitative scores for different rating dimensions, credit-relevant ESG factors can directly or indirectly affect all the rating elements which make up our assessment of an issuer's business risk profile, financial risk profile and supplementary rating drivers.¹

4. Issuer rating

The final issuer rating is based on the analyses of business-risk and financial-risk profiles on the one hand, and the potential inclusion of analytical opinions on the other. The rating committee decides on the relative importance of each rating driver. In

¹ Editor's note: This paragraph was changed on 4 March 2022 to remove a sentence that is not relevant to this methodology.



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general, business risk and financial risk profiles are weighted equally for BB/BBB rated companies. The analysis of investment grade companies (rated BBB- and above) focuses more on the business risk profile. B (and below) ratings are assigned with a stronger focus on the financial risk profile. The weighting between the business risk and financial risk profiles may be adjusted for specific business models and markets.



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